

Lake, and the great delta which projects out into the lake and extends from the Ogden Hot Springs on the north to Farmington on the south has been brought in by the erosion from these two streams. It is composed of the material that has been taken out of these two great gorges and is now represented by these two river valleys. This delta at Ogden is the most typical in the state and is recommended for careful study as one in process of formation.

The Provo River rises in the Uintah Mountains and flows into Utah Lake. It has a maximum flow of 3,000 second-feet and a minimum flow of 160 second-feet, with a total flow of 402,000 acre-feet. The silts carried down by this river have filled in the eastern portion of what was previously occupied by Utah Lake, and the lake is gradually filling from the silts brought in by Provo River, Hobbie Creek, and Spanish Fork River.

The Sevier River rises mostly in the Panguitch Plateau and flows north and northeasterly through a structural valley until it joins with the Sanpitch, one of its principal tributaries, then flows northwest through the Canyon Range, thence southwest to the Sevier Lake. It has a maximum flow of about 3,000 second-feet, a minimum flow of 90 second-feet and an annual total flow of about 271,000 acre-feet. Its flow through the Canyon Range is typical of many of the streams of Utah, representing a condition of superimposition where the mountains have risen while the rivers have eroded their channels deeper.

The Colorado River system forms the entire drainage of the eastern part of the state and the plateau area. In many places the gorge through which it flows is more than 1,000 feet deep. This gorge has exposed the sediments that have been accumulated since early geological time. The Colorado River flows through valleys and chains of mountains along its stream course. The mountain chains and plateaus through which it flows have resulted from irregular rising through folding and faulting. For example, in the case of the Grand Canyon of the Colorado the stream channel was established before the rising of the great Kaibab Plateau, and the stream cut rapidly enough to hold its position during the rise of land. This action has produced a very deep canyon instead of a valley, because the stream has had time to cut downward only instead of meandering laterally.

The Green River with its set of tributaries is the principal tributary of the Colorado. The Green River has shown a maximum flow of 42,000 second-feet, a minimum flow of 1,400 second-feet and a total annual flow of 5,730,000 acre-feet. The Colorado River has been measured with a maximum flow as large as 60,000 second-feet and a minimum flow as small as 2,000 second-feet. The annual average water flow out of Utah into Arizona amounts to 15,200,000 acre-feet. This water contains a high per cent of silt and the total silt carried by the river represents that which has been taken from the valley and gorge development throughout the river system. Many box canyons have been formed by the small streams which flow into the Colorado River. These have been due to the softening of the materials through the stream flow and a general rise of the land through a period of rapid erosion.

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